

CONSTRUCTION SECTOR

REINFORCING RODWORKER / IRONWORKER

WIRE QUILTS

CHALLENGE :

Women in Construction: Meet Jamie McMillian



Jamie became an ironworker in 2002 when women only represented 2% of the workforce across Canada and the United States. She thoroughly understands the struggles and challenges of working a male dominated workforce and is on mission to break down the negative misconceptions and stereotypes.

Through KickAss Careers Jamie travels approximately 30 weeks a year providing engaging keynote presentations and workshops to more than 50,000 students, parents, educators and employers each year across North America. Her efforts have gained international notoriety for opening doors and minds to the possibilities of well-paid careers in skilled trades and technology sectors.

Over the years Jamie has received the Top 20 Under 40 Award for making an impact in the metal trades, the Ontario Youth Apprenticeship Program Champion Award and District School Board of Niagara Technology Education Partnership Award for her commitment to youth in schools across the province of Ontario.

In 2018 she received the Hamilton YWCA Women of Distinction Award for being a trailblazer excelling in her field promoting leadership and equal advancement opportunities. In 2019 Jamie was named a co-chair on a National Skilled Trades Advisory Committee to create a campaign to promote careers in skilled trades as first choice pathways to youth for the Canadian Federal Government by Prime Minister Justin Trudeau.

In her free time she loves to hang out with family, friends, travel, climb mountains and hike with her tuxedo cat, 'Spud Wrench.'

What is a Rod Worker : A Reinforcing roadworker reinforces a wide variety of concrete construction including but not limited to buildings, landscape features, parking garages, caissons, highways, bridges, wind turbines, stadiums and towers by reinforcing steel, composite materials, welded wire mesh, post-tensioning systems and any other concrete reinforcement.



CHALLENGE DETAILS



For this challenge students will have the opportunity to try their hand at rod work by creating wire quilts. The idea of this challenge is to have the students be able to mold and reinforce the wire as if they were doing it in real life; rod workers reinforce structures using rebar which they tie together. Gluing the wire in the wire quilts together, will mimic this idea. Finished quilts will be strong and secure.

CHALLENGE MATERIALS

- Floristry wire or picture wire
- Hot glue
- Pencil and paper
- Scissors or another tool that can be used to cut the wire

Optional Materials:

- Embellishments such as beads, coloured wire, string

CHALLENGE GUIDELINES

1. Students must create a design plan for their quilt. The design must include measurements (how big their quilt will be), patterns or images they plan to create and outline where their wire will go. If students are using embellishments (i.e. beads), they must indicate where

those will be placed on the design. Students must also include the materials they will use, and their name

2. Students then must follow their design plan and create their design using the approved wire and embellishments
3. Once completed, students must display their wire quilts and take a picture of their finished product

In addition to completing the challenge, students must complete all other requirements to be eligible for a chance to win a prize! Teacher's are permitted to submit and upload student submissions.

RESEARCH GUIDELINES

Students are required to complete a research component for this challenge. Students must:

- Pick a skilled trade career of choice in the construction / industrial / service / motive power sector
- Provide a description of what that career is (3 – 5 sentences)
- Identify the average salary
- Identify tech classes that studnets can take to help prepare for that skilled trade career
- Identify college programs offered for that skilled trade career
- Identify why that skilled trade is important (i.e. is it in demand?)

****BONUS:** Students have the opportunity to receive bonus points if they can:

- Identify a famous tradeswomen, who they are, and what they did/do (either a pioneer in the industry or current); OR
- Identify an invention created by a women in that industry, what it is, what it does and how it made a difference to every day life (i.e. creating a receipe book)

SCORING/JUDGING

There are AMAZING prizes to be won and EACH CHALLENGE has first, second, and third place prizes! See website for more details!

Submissions will be marked based on the following criteria:

Judging Criteria	Points
Design: Were student's names included? [individual or team of two (2)] Was a design provided? Was the design neat and easy to follow? Was the design creative? Did the design include dimensions? Were all materials used listed?	10 points

Build: Did the final project match the design? Was the project neatly constructed? Was the project decorated?	10 points
Decorations: Was the outlined theme followed? Was there a variety of decorations used? Were the decorations appropriate?	5 points
Research: Was a skilled trade career listed? Was there a description of the skilled trade provided? Was an average salary noted? Was there a local college noted? Was there a list of tech classes noted? BONUS: Was there a famous tradeswomen identified?	10 points
Photo: Was the entire project clearly shown in the picture?	5 points

Challenge Total Marks: / 40 points

How to Submit

To submit your project, go to <https://www.skillsontario.com/idg> click the button called "Submit Your Project". You will be brought to a website where you must fill out all required information and upload your projects. Teachers can submit on behalf of their students.

Submissions can be a photo of the completed project, with student's name (First name, and first letter of last initial).

Skills Ontario will directly email the winners using the email address provided with the submissions. A complete listing of the winners will be made available at <https://www.skillsontario.com/idg> on November 3, 2023.